

11/14/00

JCS603 U.S. PTO 09/710842

11/14/00

UTILITY PATENT APPLICATION TRANSMITTAL		Attorney Docket No.	1914-1419	Total Pages	23
(Form for new nonprovisional applications under 37 CFR 1.53(b))		First Named Inventor or Application Identifier			
		Martin CIPAR			
		Express Mail Label No.			
<b>APPLICATION ELEMENTS</b> See MPEP chapter 600 concerning utility patent application contents.		<b>ADDRESS TO:</b> Assistant Commissioner of Patents Box Patent Application Washington, D.C. 20231			
<p>1. <input checked="" type="checkbox"/> Fee Transmittal Form (Submit an original, and a duplicate for fee processing)</p> <p>2. <input checked="" type="checkbox"/> Specification Total pages [16] (preferred arrangement set forth below)</p> <ul style="list-style-type: none"><li>- Descriptive title of the invention</li><li>- Cross references to Related Applications</li><li>- Statement Regarding Fed sponsored R&amp;D</li><li>- Reference to Microfiche Appendix</li><li>- Background of the Invention</li><li>- Brief Summary of the Invention</li><li>- Brief Description of the Drawings</li><li>- Detailed Description</li><li>- Claims</li><li>- Abstract of the Disclosure</li></ul> <p>3. <input type="checkbox"/> Drawing(s) (35 USC 113) (Total Sheets) <input type="checkbox"/></p> <p>4. <input checked="" type="checkbox"/> Oath or Declaration (Total Pages) [3]</p> <ul style="list-style-type: none"><li>a. <input type="checkbox"/> Newly executed (original or copy)</li><li>b. <input checked="" type="checkbox"/> Copy from a prior application (37 CFR 1.63(d) (for continuation/divisional with Box 17 completed)</li></ul> <p><b>[Note Box 5 below]</b></p> <p>i <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b> Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)</p> <p>5. <input checked="" type="checkbox"/> Incorporation by Reference (useable if Box 4b is checked) The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.</p>		<p>6. <input type="checkbox"/> Microfiche Computer Program (Appendix)</p> <p>7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)</p> <ul style="list-style-type: none"><li>a. <input type="checkbox"/> Computer Readable Copy</li><li>b. <input type="checkbox"/> Paper Copy (identical to computer copy)</li><li>c. <input type="checkbox"/> Statement verifying identity of above copies</li></ul> <p><b>ACCOMPANYING APPLICATION PARTS</b></p> <p>8. <input type="checkbox"/> Assignment Papers (cover sheet &amp; document(s))</p> <p>9. <input type="checkbox"/> 37 CFR 3.73(b) Statement (when there is an assignee)</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Power of Attorney</li></ul> <p>10. <input type="checkbox"/> English Translation Document (if applicable)</p> <p>11. <input type="checkbox"/> Information Disclosure Statement /PTO 1449 <input type="checkbox"/> Copies of IDS Citations</p> <p>12. <input checked="" type="checkbox"/> Preliminary Amendment</p> <p>13. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized)</p> <p>14. <input type="checkbox"/> Small Entity Statement(s) <input type="checkbox"/> Statement Filed in prior application, Status still proper and desired</p> <p>15. <input type="checkbox"/> Certified Copy of Priority Document(s). (if foreign priority is claimed)</p> <p>16. <input type="checkbox"/> Other:</p>			
17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:					
<input checked="" type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No.: 09/364,044					
<b>18. CORRESPONDENCE ADDRESS</b>					
<input type="checkbox"/> Customer Number or Bar Code Label or <input checked="" type="checkbox"/> Correspondence address below (Insert Customer No. or Attach bar code label here)					
Name	Mark I. Bowditch, Reg. No. 40,315				
Address	Rothwell, Figg, Ernst & Manbeck Suite 701-East, 555 13th Street, N.W.				
City	Washington	State	D.C.	Zip Code	20004
Country	U.S.A.	Telephone	202-783-6040	Fax	202-783-6031

<b>FEE TRANSMITTAL</b>  <b>(Large Entity)</b>		Complete if Known	
		Application Number	
		Filing Date	
		First Named Inventor	Martin CIPAR
		Group Art Unit	
Examiner Name			
Total Amount of Payment	(\$710.00)	Attorney Docket Number	914-1419

**METHOD OF PAYMENT** (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to Deposit Account Number 02-2135 in the name of Rothwell, Figg, Ernst & Manbeck

☒ Charge any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Charge for the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance

**FEE CALCULATION** (continued)

**3. ADDITIONAL FEES**

Fee Description	Fee Code	Fee Paid
<input type="checkbox"/> Surcharge - late filing fee or oath	105	130
<input type="checkbox"/> Surcharge - late provisional filing fee or cover sheet	127	50
<input type="checkbox"/> Non-English specification	139	130
<input type="checkbox"/> For filing a request for reexamination	147	2,520
<input type="checkbox"/> Requesting publication of SIR prior to Examiner action	112	920
<input type="checkbox"/> Requesting publication of SIR after Examiner action	113	1,840*
<input type="checkbox"/> Extension for reply within first month	115	110
<input type="checkbox"/> Extension for reply within second month	116	390
<input type="checkbox"/> Extension for reply within third month	117	890
<input type="checkbox"/> Extension for reply within fourth month	118	1,390
<input type="checkbox"/> Extension for reply within fifth month	128	1,890
<input type="checkbox"/> Notice of Appeal	119	310
<input type="checkbox"/> Filing a brief in support of an appeal	120	310
<input type="checkbox"/> Request for Oral Hearing	121	270
<input type="checkbox"/> Petition to institute a public use proceeding	138	1,510
<input type="checkbox"/> Petition to revive -unavoidable	140	110
<input type="checkbox"/> Petition to revive - unintentional	141	1,240
<input type="checkbox"/> Utility issue fee (or reissue)	142	1,240
<input type="checkbox"/> Design issue fee	143	440
<input type="checkbox"/> Plant issue fee	144	600
<input type="checkbox"/> Petitions to the Commissioner	122	130
<input type="checkbox"/> Petitions related to provisional applications	123	50
<input type="checkbox"/> Submission of Information Disclosure Statement	126	240
<input type="checkbox"/> Recording each patent assignment per property (times number of properties)	581	40
<input type="checkbox"/> Filing a submission after final rejection (37 CFR .129(a))	146	710
<input type="checkbox"/> For each additional invention to be examined (37 CFR 1.129(b))	149	710

Other fee (specify)

☐

**FEE CALCULATION**
**1. FILING FEE**

Fee Description	Fee Code	Fee Paid
<input checked="" type="checkbox"/> Utility Filing Fee	101	710
<input type="checkbox"/> Design Filing Fee	106	320
<input type="checkbox"/> Plant Filing Fee	107	490
<input type="checkbox"/> Reissue Filing Fee	108	710
<input type="checkbox"/> Provisional Filing Fee	114	150

**SUBTOTAL \$710**

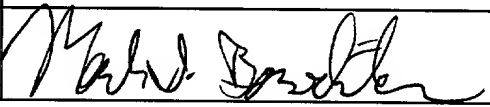
**2. CLAIMS**

	Fee from			
	Extra	below		Fee Paid
Total Claims	18 - 20 =	x \$18	=	
Independent Claims	1 - 3 =	x 80	=	
Multiple Dependent Claims	+	270	=	

**SUBTOTAL \$**

\* Reduced by Basic Filing Fee Paid

**SUBTOTAL \$**

SUBMITTED BY		Complete (if applicable)	
NAME AND REG. NUMBER	Mark I. Bowditch, Reg. No. 40,315		
SIGNATURE		DATE	11/14/00
		DEPOSIT ACCOUNT USER ID	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of )  
 )  
Martin CIPAR )  
 )  
Serial No. ) Examiner:  
 )  
Filed: ) Group Art Unit:  
 )  
For: POTATO CULTIVAR FL1879 )

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Prior to examination on the merits, please amend the above-referenced application as follows:

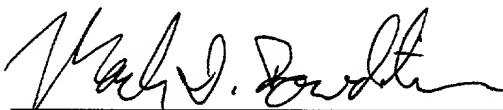
Page 1, after the title, please insert

--Cross-Reference to Related Applications

This application is a continuation of co-pending U.S.  
application Serial No. 09/364,044, filed July 30, 1999.--

Respectfully submitted,

By



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## **POTATO CULTIVAR FL1879**

### **BACKGROUND OF THE INVENTION**

The present invention relates to a novel potato variety and to the tubers, plants, plant parts, tissue culture and seeds produced by that potato variety.

5 The publications and other materials used herein to illuminate the background of the invention and, in particular cases, to provide additional details respecting the practice, are incorporated by reference and for convenience, are referenced in the following text by author and date and are listed alphabetically by author in the appended bibliography.

10 The potato is the world's fourth most important food crop and by far the most important vegetable. Potatoes are currently grown commercially in nearly every state of the United States. Annual potato production exceeds 18 million tons in the United States and 300 million tons worldwide. The popularity of the potato derives mainly from its versatility and nutritional value. Potatoes can be  
15 used fresh, frozen or dried, or can be processed into flour, starch or alcohol. They contain complex carbohydrates and are rich in calcium, niacin and vitamin C.

To keep the potato industry growing to meet the needs of the consuming public, substantial research and development efforts are devoted to the  
20 modernization of planting and harvesting of fields and processing of potatoes, and to the development of economically advantageous potato varieties. Through

crossbreeding of potatoes, researchers hope to obtain potatoes with the desirable characteristics of good processability, high solids content, high yield, resistance to diseases and pests and adaptability to various growing areas and conditions.

5       The U.S. acreage planted in potatoes has declined since the 1960s and 1970s, and this decline, coupled with increasing consumption, must be offset by higher useable yields. In some areas, diseases and pests damage crops despite the use of herbicides and pesticides. The problem of the golden nematode in the United States, presently endemic to portions of New York State, is one  
10   example of the destruction to susceptible potato varieties. Potato varieties with high yields, disease resistance and adaptability to new environments can eliminate many problems for the potato grower and provide more plentiful and economical products to the consumers.

For the potato chip processing industry, potatoes having high solids  
15   content, good shipping qualities and good finished chip color can increase production volumes and efficiencies and product acceptability. Potato varieties which yield low-solids tubers result in unnecessary energy usage during the frying process. Moreover, as solids content increases, the oil content of fried products decreases, which is a favorable improvement. Potato varieties in the  
20   warm southern tier of states are most in need of solids improvement overall, while those varieties grown and stored in the colder northern tier of states are most in need of the ability to recondition after cool or cold storage to increase their value for use in the potato chip industry. Reconditioning is necessary to elevate the temperature of the potatoes after cold storage and before further  
25   processing.

The research leading to potato varieties which combine the advantageous characteristics referred to above is largely empirical. This research requires large investments of time, manpower, and money. The development of a potato cultivar can often take up to eight years or more from greenhouse to commercial

usage. Breeding begins with careful selection of superior parents to incorporate the most important characteristics into the progeny. Since all desired traits usually do not appear with just one cross, breeding must be cumulative.

Present breeding techniques continue with the controlled pollination of parental clones. Typically, pollen is collected in gelatin capsules for later use in pollinating the female parents. Hybrid seeds are sown in greenhouses, and tubers are harvested and retained from thousands of individual seedlings. The next year a single tuber from each resulting seedling is planted in the field, where extreme caution is exercised to avoid the spread of virus and diseases. From this first-year seedling crop, several "seed" tubers from each hybrid individual which survived the selection process are retained for the next year's planting. After the second year, samples are taken for density measurements and fry tests to determine the suitability of the tubers for commercial usage. Plants which have survived the selection process to this point are then planted at an expanded volume the third year for a more comprehensive series of fry tests and density determinations. At the fourth-year stage of development, surviving selections are subjected to field trials in several states to determine their adaptability to different growing conditions. Eventually, the varieties having superior qualities are transferred to other farms and the seed increased to commercial scale. Generally, by this time, eight or more years of planting, harvesting and testing have been invested in attempting to develop the new and improved potato cultivars.

Long-term, controlled-environment storage has been a feature of the northern, principal producing areas for many years. Potatoes harvested by October must be kept in good condition for up to eight months in temperatures that may drop to -30 degrees C. at times and with very low relative humidity in the outside air. Storages are well insulated, not only to prevent heat loss but also to prevent condensation on outside walls. The circulation of air at the required temperature and humidity is automatically controlled depending on the

purpose for which the potatoes are being stored. Sprout inhibition is now largely carried out in storage as it has been found to be more satisfactory than the application of maleic hydrazide (MH30) in the field.

Proper testing of new plants should detect any major faults and establish the level of superiority or improvement over current varieties. In addition to showing superior performance, a new variety must be compatible with industry standards or create a new market. The introduction of a new variety will increase costs of the tuber propagator, the grower, processor and consumer; for special advertising and marketing, altered tuber propagation and new product utilization. The testing preceding release of a new variety should take into consideration research and development costs as well as technical superiority of the final variety. Once the varieties that give the best performance have been identified, the tuber can be propagated indefinitely as long as the homogeneity of the variety parent is maintained. For tuber propagated varieties, it must be feasible to produce, store and process potatoes easily and economically.

Thus, there is a continuing need to develop potato cultivars which provide good processability out of storage, with minimal bruising, for manufacturers of potato chips and other potato products and to combine this characteristic with the properties of disease resistance, resistance to pests. The present invention addresses this need by providing the new variety as described herein.

#### SUMMARY OF THE INVENTION

According to the invention, there is provided a novel potato cultivar of the genus and species, *Solanum tuberosum*, designated FL1879. This invention thus relates to the tubers of potato variety FL1879, the plants and plant parts of potato variety FL1879 and to methods for producing a potato plant produced by crossing the potato variety FL1879 with itself or another potato variety. This invention further relates to hybrid potato seeds and plants produced by crossing the potato variety FL1879 with another potato plant.

In another aspect, the present invention provides for Single Gene Converted plants of FL1879. The single gene transferred may be a dominant or recessive allele. Preferably, the single gene transferred will confer such traits as herbicide resistance, insect resistance, resistance for bacterial, fungal or viral disease, uniformity and increase in concentration of starch and other carbohydrates, decrease in tendency of tuber to bruise and decrease in the rate of conversion of starch to sugars. The single gene transferred may be a naturally occurring gene or a transgene introduced through genetic engineering techniques.

## 10                    DETAILED DESCRIPTION OF THE INVENTION

A novel potato cultivar of the present invention, which has been designated FL1879, has been obtained by selectively crossbreeding parental clones through several generations. The immediate parents of FL1879 were cultivars designated FL1207 and Snowden. These parent strains were selected for the ability to be processed into light-colored potato chips when stored several months at cold temperatures and for their properties of a high number of tuber sets and good yield potential, as well as high content of dry matter.

FL1879 cultivar has olive green foliage. This cultivar has medium, but ultimately vigorous vine growth and few white flowers and produces tubers which are characterized by a pale yellow flesh color, a good specific gravity, moderately high dry matter content, and a substantially smooth, slightly oval shape. As a chipping variety to be grown principally for processing out of storage, the most appropriate variety with which to compare FL1879 is the commercial cultivar Snowden, which is one of the parental lines. A comparison of FL1879 with Snowden reveals that FL1879 has semi-erect growth habit and produces oval, pale yellow fleshed tubers while Snowden's growth habit is more erect, has less compact plants, and produces round, white fleshed tubers. While both FL1879 and Snowden have white flowers that are similar, flowering is much more frequent in Snowden.



FL 1879 has average yields slightly higher than Snowden and its solids are slightly lower. FL1879 is highly resistant to Tuber Early Blight, which is a significant benefit in the Southwest. The tubers produced by FL1879 are well-suited for the production of potato chips. A characteristic feature of the tubers is their comparatively good specific gravity relative to the standard commercial variety in a production area. The specific gravity generally ranges from about 1.070 to 1.079; however, it will be appreciated that specific gravities can vary substantially depending upon growing conditions and areas. Higher specific gravities are advantageous for chipping and other frying applications, as they reduce the total energy and time required for the frying operation.

In addition to the specific gravity of the tubers of this invention, they also have an advantageous shape for commercial operations. The tubers are smooth skinned and generally lack knobs and other protuberances, as well as deep ridges or convolutions. Accordingly, they are amenable to efficient washing and peeling operations using large-scale automated equipment. Such shapes produce a high quality product with a minimal amount of waste. The tubers are generally oval in shape and have a size which is suited to the manufacture of potato chips. On average, these tubers have a mean length of 80 millimeters (range: 62-105 millimeters); a mean width of 73 millimeters (range: 60-90 millimeters); and a mean thickness of 52 millimeters (range: 40-68 millimeters) based upon a 100-tuber sample. Of course, the size of the tubers can vary over a relatively wide range depending on growing conditions and locations. The slightly flattened shape of the tubers is advantageous, because it facilitates alignment in the slicing apparatus.

Among the more important characteristics of the potato cultivar of this invention is its resistance to tuber blemishes caused by early blight (*Alternaria solani*), which is a significant threat to production in the Southwest. Additionally, it has pale yellow flesh and produces attractive chips both fresh from the field and after storage from October through April. A comparison of the storage life of tubers from the parent cultivar, Snowden, and the cultivar of this invention

illustrates that the cultivar of the invention has a storage life which is approximately eight months longer than that of Snowden.

Other advantageous properties of the plants of the present invention include its potential as a storage chipping variety for the northern states of the United States, as well as areas of Texas and New Mexico that grow chipping potatoes for storage.

In addition to the morphological characteristics and disease and pest resistance as described above, the plants of this invention are characterized by their protein "fingerprint" patterns. The protein "fingerprint" is determined by separating tuber proteins on an electrophoretic gel under certain defined conditions. The pattern of the proteins, attributable to their differential mobilities on the electrophoretic gel, have been found to be characteristic of the particular plant involved. This pattern has thus been termed a "fingerprint." Isozyme fingerprints of all available North American potato varieties have revealed that no two varieties have the same pattern for the enzymes tested. (Douches and Ludlam, 1991). The isozyme fingerprint of FL1879 has been established as distinct from that of any other variety tested, including Snowden (Douches and Ludlam, 1991). These techniques generally involve extracting proteins from the tuber and separating them electrophoretically.

Potato variety FL1879 has the following morphologic and other characteristics.

#### VARIETY DESCRIPTION INFORMATION

1. **Classification:** *Solanum Tuberosum* L.
2. **Plant characteristics:** (Observed at beginning of bloom)
 

25	Growth habit:	Semi-erect (30°-45° with ground)
	Type:	Intermediate
	Maturity (Days after planting - DAP):	135
	Maturity Class:	Late (121-130 DAP)
3. **Stem Characteristics:** (Observed at early first bloom)
 

30	Stem (anthocyanin coloration):	Absent
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Stem (wings):

Medium

4. **Leaf Characteristics:** (Observed fully developed leaves located in the middle one-third of plant):

Leaf (color):

Olive green/137A RHS

5

Leaf (pubescence density):

Medium

Leaf (silhouette):

Medium

Petioles (anthocyanin coloration):

Absent

Terminal leaflet (shape):

Medium ovate

Terminal leaflet (shape of tip):

Cuspidate

10

Terminal leaflet (shape of base):

Obtuse

Terminal leaflet (margin waviness):

Weak to medium

Primary leaflets (average pairs):

3

Primary leaflets (shape of tip):

Acuminate

Primary leaflets (shape):

Medium ovate

15

Primary leaflets (shape of base):

Lobed

5. **Inflorescence Characteristics:**

Corolla (shape):

Pentagonal

Corolla (inner surface color):

White/155D RHS

Calyx (anthocyanin coloration):

Absent

20

Anthers (shape):

Narrow cone

Stigma (shape):

Capitate

Stigma (color):

137A RHS

6. **Tuber Characteristics:**

Skin (predominant color):

Tan

25

Skin (texture):

Smooth

Tuber (shape):

Oval

Tuber (thickness):

Slightly flattened

Tuber (length):

80mm (average)

Tuber (width):

73mm (average)

	Tuber (thickness):	52mm (average)
	Tuber eyes (depth):	Intermediate
	Tuber (primary flesh color):	160D RHS
	Tuber (prominence of eyebrows):	Slight prominence
5	Tuber (number per plant):	Medium (8-15)
7.	<b>Reaction to Diseases:</b>	
	Bacterial ring rot foliar reaction	Susceptible
	Bacterial ring rot tuber reaction	Susceptible
	Late blight <i>Phytophthora infestans</i>	Moderately resistant
10	Early blight	Resistant
	Leaf roll (PLRV)	Not tested
	Virus X	Not tested
	Virus Y	Highly susceptible
8.	<b>Reaction to Pests:</b>	
15	Golden nematode <i>Globodera rostochiensis</i>	Susceptible

Persons of ordinary skill in the art will recognize that when the term potato plant is used in the context of the present invention, this also includes derivative varieties that retain the essential distinguishing characteristics of FL1879, such as a Single Gene Converted plant of that variety or a transgenic derivative

20 having one or more value-added genes incorporated therein (such as herbicide or pest resistance. Backcrossing methods can be used with the present invention to improve or introduce a characteristic into the variety. The term backcrossing as used herein refers to the repeated crossing of a hybrid progeny back to the recurrent parents. The parental potato plant which contributes the

25 gene for the desired characteristic is termed the nonrecurrent or donor parent. This terminology refers to the fact that the nonrecurrent parent is used one time in the backcross protocol and therefore does not recur. The parental potato plant to which the gene or genes from the nonrecurrent parent are transferred is

known as the recurrent parent as it is used for several rounds in the backcrossing protocol. In a typical backcross protocol, the original variety of interest (recurrent parent) is crossed to a second variety (nonrecurrent parent) that carries the single gene of interest to be transferred. The resulting progeny  
5 from this cross are then crossed again to the recurrent parent and the process is repeated until a potato plant is obtained wherein essentially all of the desired morphological and physiological characteristics of the recurrent parent are recovered in the converted plant, in addition to the single gene transferred from the nonrecurrent parent.

10 The selection of a suitable recurrent parent is an important step for a successful backcrossing procedure. The goal of a backcross protocol is to alter or substitute a single trait or characteristic in the original variety. To accomplish this, a single gene of the recurrent variety is modified, substituted or supplemented with the desired gene from the nonrecurrent parent, while  
15 retaining essentially all of the rest of the desired genes, and therefore the desired physiological and morphological constitution of the original variety. The choice of the particular nonrecurrent parent will depend on the purpose of the backcross. One of the major purposes is to add some commercially desirable, agronomically important trait to the plant. The exact backcrossing protocol will  
20 depend on the characteristic or trait being altered or added to determine an appropriate testing protocol. Although backcrossing methods are simplified when the characteristic being transferred is a dominant allele, a recessive allele may also be transferred. In this instance, it may be necessary to introduce a test of the progeny to determine if the desired characteristic has been successfully  
25 transferred.

Likewise, transgenes can be introduced into the plant using any of a variety of established recombinant methods well-known to persons skilled in the art.

Many single gene traits have been identified that are not regularly selected for in the development of a new variety but that can be improved by

backcrossing and genetic engineering techniques. Single gene traits may or may not be transgenic, examples of these traits include but are not limited to: herbicide resistance; resistance to bacterial, fungal or viral disease; insect resistance; uniformity or increase in concentration of starch and other carbohydrates; enhanced nutritional quality; decrease in tendency of tuber to bruise; and decrease in the rate of starch conversion to sugars. These genes are generally inherited through the nucleus. Several of these single gene traits are described in U.S. Patent No. 5,500,365, U.S. Patent No. 5,387,756, U.S. Patent No. 5,789,657, U.S. Patent No. 5,503,999, U.S. Patent No. 5,589,612, U.S. Patent No. 5,510,253, U.S. Patent No. 5,304,730, U.S. Patent No. 5,382,429, U.S. Patent N. 5,503,999, U.S. Patent No. 5,648,249, U.S. Patent No. 5,312,912, U.S. Patent No. 5,498,533, U.S. Patent No. 5,276,268, U.S. Patent No. 4,900,676, U.S. Patent No. 5,633,434 and U.S. Patent No. 4,970,168, the disclosures of which are specifically hereby incorporated by reference.

DEPOSIT INFORMATION

A deposit of the potato variety, FL 1879, propagating material is maintained by Frito-Lay, Inc., at \_\_\_\_\_. Access to this deposit will be available during the pendency of this application to persons determined by the Commissioner of Patents and Trademarks to be entitled thereto under 37 CFR 1.14 and 35 USC 122. Upon allowance of any claims in this application, all restrictions on the availability to the public of the variety will be irrevocably removed by affording access to a deposit of at least 25 vials of germplasm of the same variety with the American Type Culture Collection, Manassas, Virginia, or another acceptable depository.

Hereinabove has been set out a new variety of potato, *Solanum tuberosum*, designated as FL1879, including its physical characteristics and qualities by way of illustration and example for purposes of clarity and understanding. It will be obvious that variations are possible within the scope of this invention, as limited only by the scope of the appended claims.

## REFERENCES

- Douches, D.S. and K. Ludlam (1991). "Electrophoretic Characterization of North American Potato Cultivars", *Am. Potato J.* **68**:767-780.
- Jones, E.D. (1987). "Trends in commercial and seed potato production in North America and expected future developments." In Hesen, J.C., van Loon, C.D., Hermesen, J.G. and Turkensteen, L.J. (Eds.). Workshop on recent and future developments of the potato in the world. *Acta Horticulture*, No. 213. Netherlands.
- Rowberry, R.G. and Howells, A.J.D. (1979). "Potato production, marketing and use in North America," *Potato Research* **22(3)**:163-175.



WHAT IS CLAIMED IS:

1. A potato tuber designated FL1879.
2. A plant and its parts produced by growing the tuber of claim 1.
3. Pollen of the plant of claim 2.
4. An ovule of the plant of claim 2.
5. A potato plant having the physiological and morphological characteristics of the plant of claim 2.
6. Tissue culture of the plant of claim 2.
7. A potato plant regenerated from the tissue culture of claim 6.
8. A potato seed produced by growing the potato tuber of claim 1.
9. A potato plant and its parts produced by growing the seed of claim 8.
10. A potato plant regenerated from the tissue culture of the plant of claim 9.
11. A method for producing a hybrid potato seed comprising crossing a first potato plant with a second potato plant and harvesting the resultant hybrid potato seed, wherein said first or second parent potato plant or both said first and second potato plant is the potato plant of claim 2.
12. A hybrid seed produced by the method of claim 11.
13. A hybrid plant and its parts produced by growing said hybrid potato seed of claim 12.
14. Seed produced from said hybrid plant of claim 13.
15. A method for producing a hybrid potato seed comprising crossing a first potato plant with a second potato plant and harvesting the resultant hybrid potato seed, wherein said first or second parent potato plant is the potato plant of claim 9.
16. A hybrid seed produced by the method of claim 15.

17. A hybrid plant and its parts produced by growing said hybrid potato seed of claim 16.

18. Seed produced from said hybrid plant of claim 17.

### ABSTRACT OF THE DISCLOSURE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80																				

**Declaration and Power of Attorney for Patent Application**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought, on the invention entitled POTATO CULTIVAR FL1879, the specification of which

☐ is attached hereto.  
☒ was filed on July 30, 1999  
 Application Serial No. 09/364,044  
 and was amended on \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

			Priority Claimed	
_____ (Number)	_____ (Country)	_____ (Day/Month/Year)	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Prior Foreign Application(s)

			Priority Claimed	
_____ (Number)	_____ (Country)	_____ (Day/Month/Year)	<input type="checkbox"/> Yes	<input type="checkbox"/> No

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below.

\_\_\_\_\_

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status)
(Application Serial No.)	(Filing Date)	(Status)

I or we hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and request that all correspondence about the application be addressed to ROTHWELL, FIGG, ERNST & KURZ, p.c., Suite 701-E, 555 13th Street, N.W., Washington, D.C. 20004

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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